INTER-OFFICE LETTER

WESTERN MINING DIVISIONS
1515 Mineral Square, Salt Lake City 12, Utah

DATE: December 22, 1964

TO: Job File No. 332

FROM: J. F. Knudsen

PLACE: WMD-ED

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SUBJECT: Minutes of Meeting Held with USU Personnel and Others on Tailings Stabilization.

On December 17, 1964, a luncheon meeting was held at the University Club to discuss further methods for tailings stabilization. Vegetation growth on an experimental plot was the principal topic of discussion.

Personnel representing the Great Salt Lake Authority, USGS, Utah State University and Kennecott were present as follows:

Kennecott Copper Corporation, Utah Copper Division:

J. R. Fletcher
R. J. Heaney
K. E. Kefauver
A. J. Thuli
D. R. Mabey

Kennecott Copper Corporation - Western Mining Division:

J. F. Knudsen
C. F. Erskine

Great Salt Lake Authority:

George Buzianis
Tom Judd
R. H. Buchanan
W. S. Holt - Syracuse, Utah
A. Z. Richards, Jr.

Utah State University:

Dr. A. R. Hamson
Dr. R. F. Nielson
Dr. C. W. Cook
Dr. K. W. Hill
Dr. H. B. Peterson

Utah Geological Survey:

R. E. Cohenour

Following the luncheon, Mr. Mabey welcomed all present and explained the purpose of the meeting, which primarily was to exhibit progress made thus far and to plan further experimental work on tailings stabilization through the growth of vegetation.

The writer briefed the group on the outcome of the December 2nd meeting at USU and on what was planned for the day. Dr. Howard Peterson of USU was asked to demonstrate preliminary work undertaken by USU personnel on the growth of vegetation on tailings. Four samples of vegetation were shown, two with fertilizer amendments and two without. The difference in plant thriftiness was remarkable. The growth of the grasses and barley with no fertilizer was about five inches compared to about 18 inches for the fertilized varieties grown over a 6-week period. The non-supplemented plants were chlorotic and showed signs of necrosis (dying). Whereas, the amended plants were green and healthy.

When asked what conclusions could be drawn from these experiments, Dr. Peterson asserted that it was too early to draw conclusions but that one factor was obvious - a need for a nitrogen supplement to sustain plant growth.

As part of the planned schedule, those interested visited the proposed test site, north of the KCC tailings pond, and later observed vegetation growth on raw tailings situated between the dikes circumscribing the tailings pond.

At 3:45 P.M. the group reconvened in the Kearns Building seventh floor conference room to plan the size and nature of the vegetation experimental plot. In the short time available, the group agreed to establish two one acre plots 132 feet wide by 330 feet long and they will parallel the C-7 ditch.

No planting schedule nor specific vegetation varieties were settled at the meeting.

With the sanction of the Great Salt Lake Authority, it was established that the tailings stabilization project should be a joint venture between the USU and KCC personnel.

It was also the concensus that a final planning meeting should be held early next year to decide the varieties of vegetation, the types of fertilizer to be used and the types of stabilizers and their combinations that will be placed under experiment.

John F. Kendrew

JFK:ab

cc: Messrs. W. S. Holt, Syracuse, Utah
A. J. Thuli
K. E. Kefauver
Wynne Thorne (2), USU
D. R. Mabey
C. F. Erskine